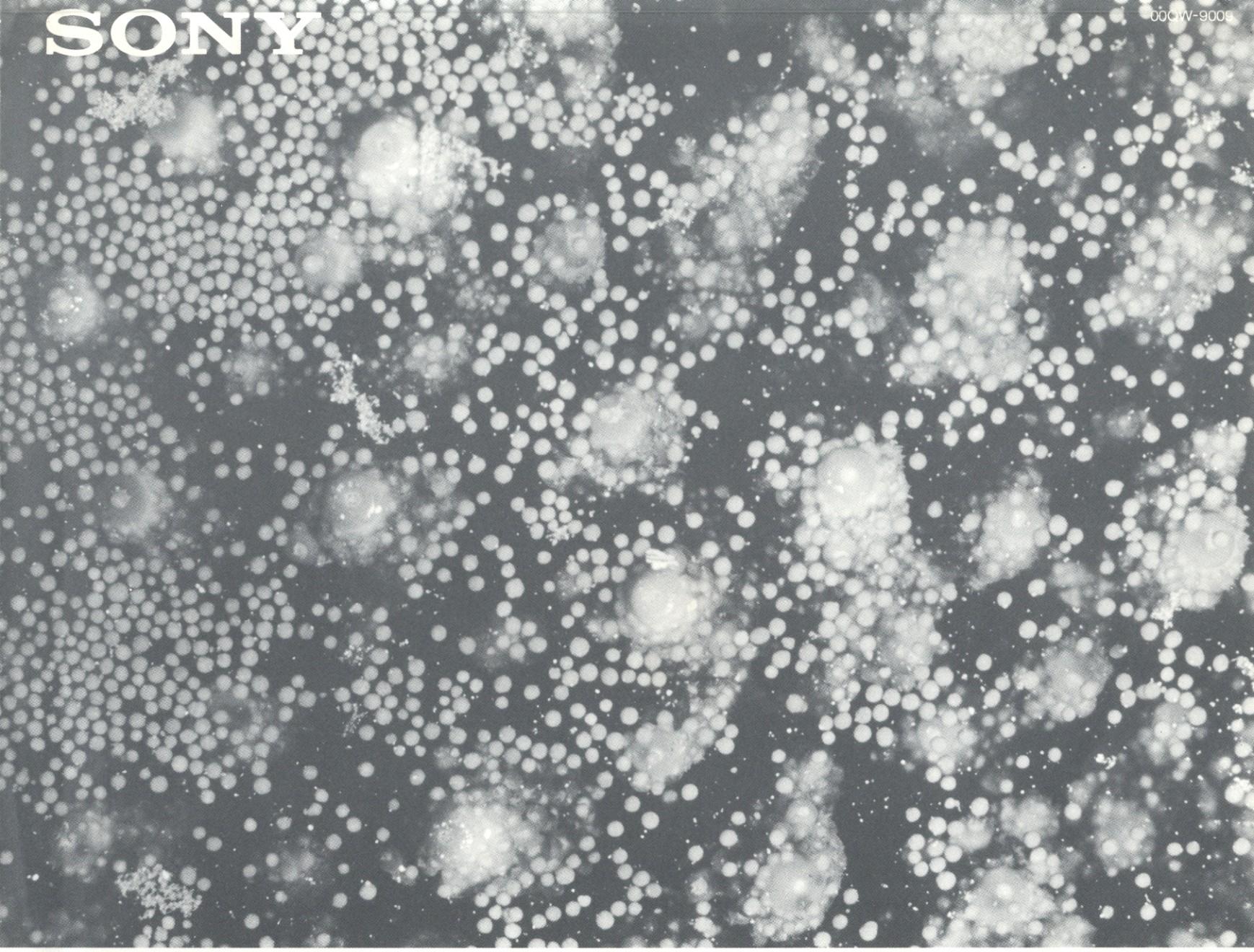


SONY

000W-9009



A CORAL STORY
コーラル ストーリー

満月の夜、年に1回だけの自然のファンタジー。
世界初！珊瑚の産卵をハイビジョンがとらえた。

自然のバランスと珊瑚の役割

珊瑚は動物でありながら、体の一部で海中の二酸化炭素を吸収し、酸素を排出して成長します。地上の森林と同じように、地球が生命の星であるために欠くことのできない酸素を広大な海の中からも供給するという重要な役割を果たしているのです。

この珊瑚の生態に注目し、その重要な働きを再認識するために、私たちは珊瑚の一生のなかでも特にドラマチックな産卵シーンを中心に、知られざる珊瑚の成長過程を映像として収録することにしました。

満月の夜、年に1回だけの産卵

珊瑚の産卵に関する研究は現在も進行中です。その学説も幾つかありますが、大半の珊瑚は年に1回、それも6月の満月の夜にしか産卵しない。時間も決まっていて、20時から23時ごろまでということです。こうした情報は、オーストラリアの珊瑚研究の第一人者であるヘイワード博士と財団法人「熱帯海洋生態研究振興財団」の協力によるものです。

「今年の産卵は6月19日満月の夜20時ごろ」という博士のアドバイスを受けて、われわれスタッフが沖縄本島西30キロ・慶良間諸島の阿嘉島に向ったのは89年5月も末のことです。

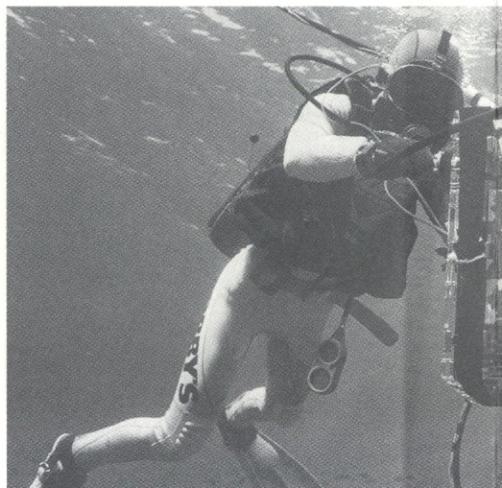
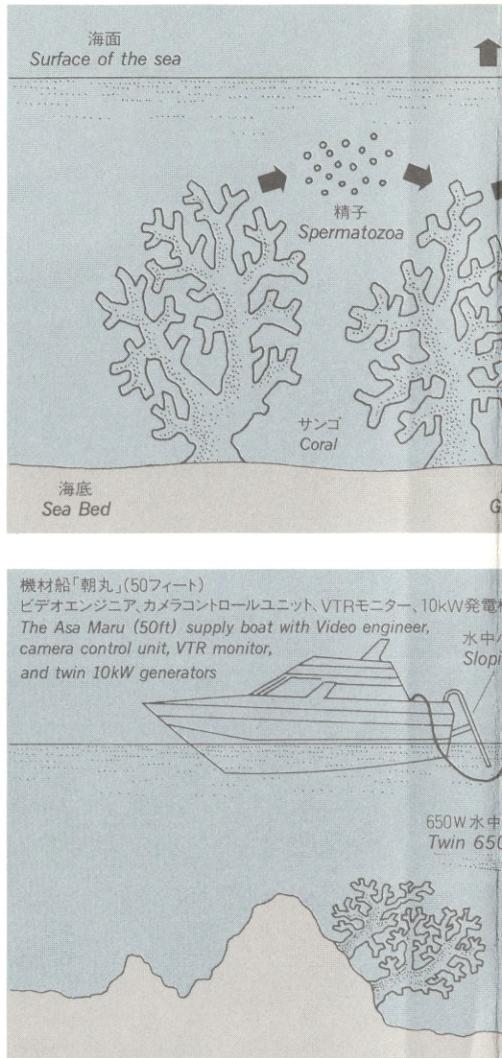
世界初のハイビジョン収録に成功

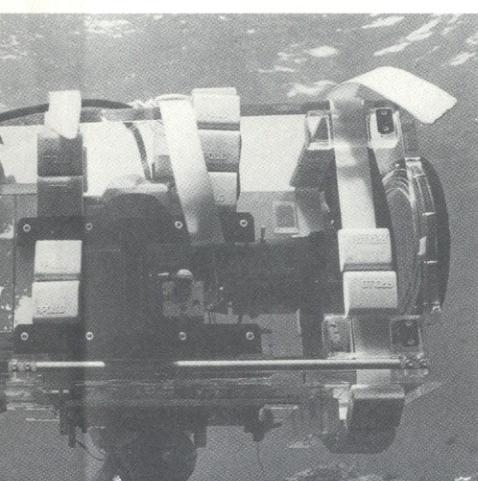
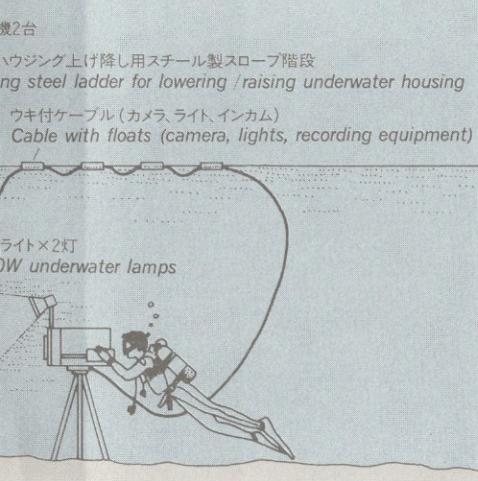
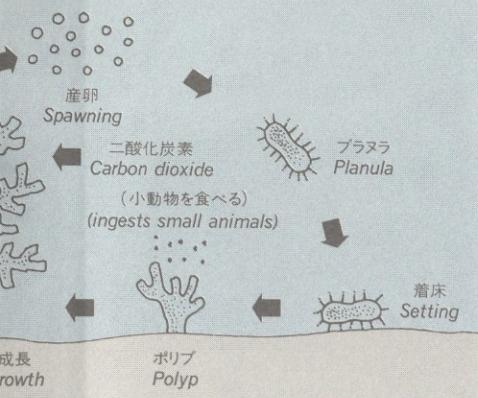
珊瑚を傷付けない細心の機材調整、ヘイワード博士の的確な指示を得ていよいよ本番。20日満月の夜、水中の珊瑚の前で、いまかいまかとじっと待ちます。すると直径2mmほどのピンクの小粒が、ひとつひとつと海中にゆらめき出すと、産卵のドラマの始まりです。やがてハロゲンランプの光りにきらめくその数は数十、数百となり、産卵はクライマックス。潮流に漂っているかに見えるその一つ一つは、やがて自分の意志をもって自由な方向に泳ぎ出す。生きている。確実に生きている。この小さな一粒は珊瑚の命であり、珊瑚は生きた動物なのだと改めて実感させられる一瞬です。

顕微鏡撮影が見せる珊瑚の成長

産卵から幼虫となり着床するまでは人間の目が入り込めないミクロの世界。顕微鏡撮影の出番です。ここからの主役はプラスラと呼ばれる珊瑚の幼虫。2mm前後の体長で無数の纖毛に覆っていて、元気いっぱいに動き回る様はまさに生命の躍動です。

予想以上の活発な動きに戸惑いながらも、撮影は順調に進み、高倍率レンズによる纖毛の動き、透過光によるプラスラ体内の細胞の様子など、貴重な珊瑚の生態をハイビジョンならではの鮮明画像で収録できました。





Once a year, when the moon is full, Nature stages a fascinating drama in tropical seas. For the first time ever, the spectacle of coral spawning has been captured on High Definition Video.

Coral's Role, Maintaining the Balance of Nature

Although coral is really an animal, part of its body absorbs carbon dioxide from the water and gives out oxygen as it grows. Like the trees on land, coral performs a very important role in maintaining life on earth, generating oxygen from the oceans. Fascinated by coral's ecology, we decided to investigate this marine animal to throw some light on its vital importance. Our mission was to capture on video tape the curious process by which coral grows, focusing on spawning—perhaps the most extraordinary stage in the life cycle of this tiny creature.

Under a Full Moon, the Annual Spawning

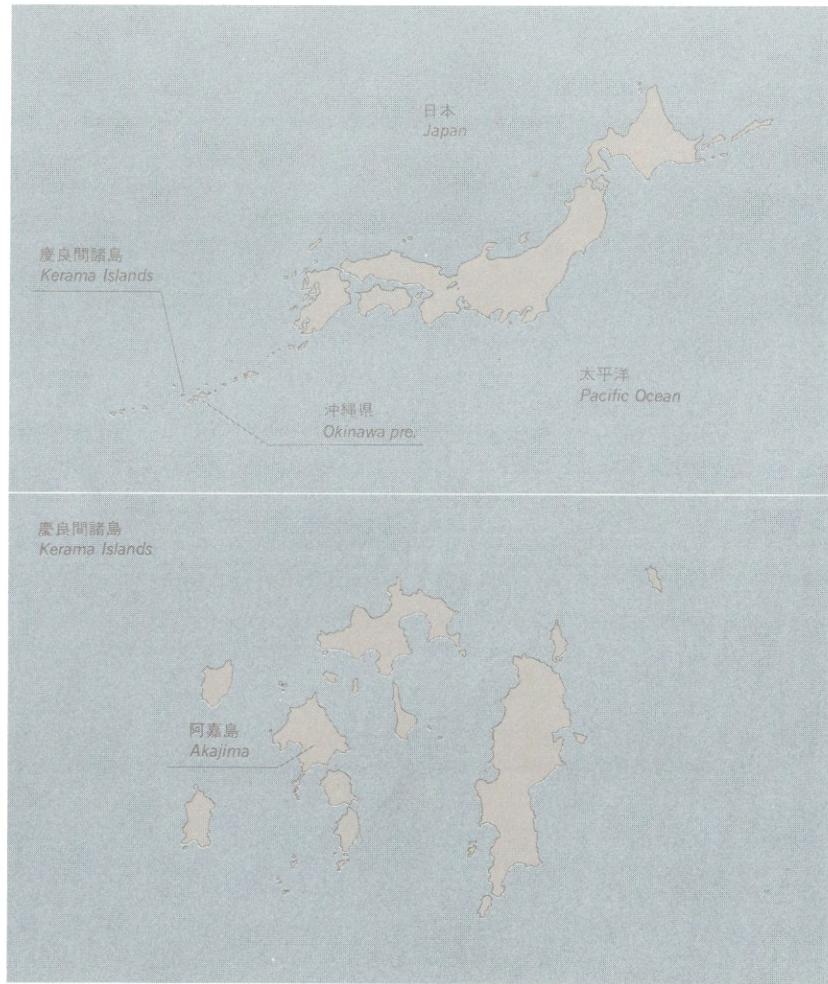
There is still a great deal to be learned about coral spawning, and theories abound. Nevertheless, most agree that coral only lays eggs once a year, and only on the night of a full moon in June. Even the time is fixed: between 8pm and 11pm. Thus were we informed by Dr. Heyward, Australia's leading authority on coral, and the Establishment of Tropical Marine Ecological Research. Learning from Dr. Heyward that "this year's spawning will take place at about 8 o'clock on the night of the 19th of June, when the moon is full," we set out for Akajima, one of the Kerama Islands 30 kilometers west of Okinawa. It was late May, 1989.

Captured on High Definition Video, for the First Time Ever

Dr. Heyward's advice proved to be accurate. After setting up our equipment, taking the greatest possible care not to harm the coral, it was time to begin shooting. On the night of the 20th, under a full moon, we waited with mounting anticipation in front of an underwater coral knoll. Suddenly there emerged a tiny pink egg, then two—only 2mm across. The spawning had begun! Dancing in the light of the halogen lamps, the eggs grew in number. First dozens, then hundreds, as the climax approached. At first they seemed to drift along with the tide, but then, as if awakening from sleep, each little egg swam off on its own, setting out on the journey of life. They are alive, most certainly. And the drama enacted by these small pink eggs is a vivid reminder that coral is indeed a living animal.

The Growth of Coral, Revealed by Photomicrography

A major part of coral's life cycle—from its appearance as an egg, through its growth as a larva, to its settling as a polyp on the sea bed—takes place on a microscopic scale, virtually invisible to the naked eye. Photomicrography, however, reveals the story as it unfolds. And the center of attention is the free-swimming coral larva, the planula—just 2mm long and covered in countless cilia (minute hairs). These bustling larvae represent the very pulse of ocean life. Although the planulae were far more lively than had been imagined, the shooting progressed smoothly. We succeeded in making a very valuable video recording of how coral lives and grows, even down to such details as the movement of their cilia (using a high-power lens) and their cellular structure (using backlighting). And all this with the breathtaking resolution and vivid color rendition of High Definition Video.



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